PTO/SB/08B (08-03)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	e for form 1449/PTO		tor 1995, no persons ar	Complete if Known		
SUP	PLEMENTA	L		Application Number	10/086,309	
INFO	DRMATION	DIS	CLOSURE	Filing Date	3/1/2004	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Dimitris Achlioptas	
	(Use as many she	ate se n	oracean)	Art Unit	2121	
	(000 00 111011) 3310	.013 43 77		Examiner Name	Chuong D. Ngo	
Sheet	1	of	1	Attorney Docket Number	MS164183.1/MSFTP316US	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
Cy		DIMITRIS ACHLIOPTAS, Database-Friendly Random Projections, Journal of Computer and Syststems Science, June 2003, 671-687, Volume 66 Issue 4	
Cy		WOLFRAM RESEARCH, Euclidean Space, http://mathworld.wolfram.com/EuclideanSpace.html, last viewed on 5/11/2005	
		`	

Examiner Signature	Date Considered	617/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

RECEIVED

MAR 2 0 2003

Technology Center 2100 Approved for use through 10/31/2002, OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Compl t if Known Substitute for form 1449A/PTO **Application Number** 10/086,309 INFORMATION DISCLOSURE March 1, 2002 Filing Date Dimitris Achlioptas First Named Inventor STATEMENT BY APPLICANT 2121 Art Unit (use as many sheets as necessary) Examiner Name Unknown MS164183.1/MSFTP316US Attorney Docket Number of Sheet 1

		U.S. PAT	ENT DOCUMENTS	
Examiner Initials	Cite No. 1 Number - Kind Code 1 (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
lin	US- 5,647,058	7-8-97	Agrawai, et al.	
1	US- 6,032,146	2-29-00	Chadha, et al.	
	US- 6,122,628	9-19-00	Castelli, et al.	
	US- 6,134,541	10-17-00	Castelli, et al.	
N/	US- 6,134,555	10-17-00	Chadha, et al.	
V	US- 6,505,207	1-7-03	Aggarwai, et al.	
	us-			
	UŞ-			
	US-			
	US-			
	us-			

		FORE	IGN PATENT D	OCUMENTS		\equiv
Examiner Initials	Cite No.1	Foreign Patent Document Country Code 3 "Number 4" - Kind Code 3" (# Introvert)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	78
						_
	·					
						<u> </u>
						<u> </u>
						
	<u> </u>					╁
	<u> </u>					├

Examiner Signature	6/7/05	Mro	Date Considered	6/7/5	•

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Oraw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

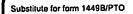
RECEIVED

MAR 2 0 2003

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Petent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) of 3 2

Compl te if Known				
Application Number	10/086,309			
Filing Date	March 1, 2002			
First Named Inventor	Dimitris Achlioptas			
Group Art Unit	2121			
Examiner Name	Unknown			
Attorney Docket Number	MS164183.1/MSFTP316US			

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	_	
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			
Gu		WILLIAM B. JOHNSON, et al.; "Extensions of Lipschitz mappings into a Hilbert space", Contemporary Mathematics, 1984, Pages 189-206, Vol. 26		
		P. FRANKL, et al.; "The Johnson-Lindenstrauss Lemma and Sphericity of Some Graphs", Journal of Combinatorial Theory, 1988, Pages 355-362, Series B 44		
		SANJEEV ARORA, et al.; "Learning Mixtures of Arbitrary Gaussians", 2001, Pages 247-257		
		SANJOY DASGUPTA; "Learning Mixtures of Gaussians", 1999		
		SANJOY DASGUPTA, et al.; "An elementary proof of the Johnson-Lindenstrauss Lemma", March 1999, Pages 1-5		
		PIOTR INDYK; "Stable Distributions, Pseudorandom Generators, Embeddings and Data Stream Computation", 2000, Pages 1-9		
		PIOTR INDYK, et al.; "Approximate Nearest Neighbors: Towards Removing the Curse of Dimensionality", 1998, Pages 604-613		
		JON M. KLEINBERG; "Two Algorithms for Nearest-Neighbor Search in High Dimensions", 1997, Pages 599-608		
		NATHAN LINIAL, et al.; "The geometry of graphs and some of its algorithmic applications", 1995, Pages 1-26		
		CHRISTOS H. PAPADIMITRIOU, et al.; "Latent Semantic Indexing: A Probabilistic Analysis", November 14, 1997, Pages 1-15		
1		LEONARD J. SCHULMAN; "Clustering for edge-Cost Minimization", 2000, Pages 1-31		

1	Date Considered 6	17/05
---	----------------------	-------

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

RECEIVED

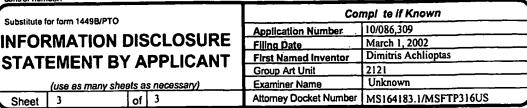
MAR 2 0 2003

Technology Center 2100

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. control number



OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T2		
Cu		SANTOSH VEMPALA; "A Random Sampling based Algorithm for Learning the Intersection of Half-spaces", 1997			
		ALAN FRIEZE, et al.; "Fast Monte-Carlo Algorithms for finding low-rank approximations", October 22, 1998			
V		SAMUEL KASKI; "Dimensionality Reduction by Random Mapping: Fast Similarity Computation for Clustering", May 4, 1998, Pages 413-418			
			_		
į			ļ		

Examiner	Ma	Date	0/2/25
Signature	U 1 1 U	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.